

Standards of Public Land Health

Evaluation of 65185 CAPROCK WEST - M Allotment

[09/29/2010]

The Roswell Field Office conducted rangeland health assessments at 2 study sites within 65185 CAPROCK WEST - M. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65185-E OF PAST 1-D172 (*)	X			X	*		N/A		
65185-W PAST 1-D256 (*)	X			X	*		N/A		

The (*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Invasive Plants

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on the Caprock West allotment, 65185. Ten of these assessed soil site stability, 11 hydrologic functions and 13 assessed biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected at the trend study plot locations within the allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell Field Office interdisciplinary teams, which include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition. The collections which were initiated in the late 1970's/early 1980's, are scheduled and conducted approximately every 5 years. This allotment is in the "I" (Improve) category.

This allotment contains 1,773 acres of public land. The two studies are located on two ecological sites; Sandy Plains CP-2 in East and Sand Hills CP-2 in West Pasture. The majority of the indicators for this allotment fell into the None to Slight category, except for Invasive Plants which was rated as a "Moderate to Extreme: departure from each of the ecological site

descriptions. The interdisciplinary team estimated the mesquite invasion on the public land production on this location to be at the level that would benefit from a vegetation manipulation project especially when combined with treatment of the adjacent private and state lands. This would require the coordination with the private land owner and the NM State Land office. Treatment of the public land alone would not be economically feasible.

There are no riparian areas on the public land within this allotment.

Recommendations: With the majority of the indicators falling in the None to Slight category, this allotment is rated as “Meeting” the standards for Rangeland Health. Continue the rangeland monitoring studies to insure proper stocking rates are maintained and that the perennial grass cover and good plant composition remains.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65185-E OF PAST 1-D172			
Legal Land Desc	SWNE 12 0150S 0300E Meridian 23	Acreage	876
Ecosite	070BY055NM SANDY PLAINS CP-2	Photo Taken	Y
Watershed	13060007090 SHINNERY SANDS		
Observers	TRAUTNER & ARNOLD	Observation Date	09/29/2010
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Fr	Soil Taxon Name	FASKIN
Texture Class	NM666 LFS	Soil Phase	FASKIN-ROSWELL
Texture Modifier	NM666 SANDY CLAY LOAM,ER		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation		NOAA Growing Season Precipitation	
NOAA Avg Annual Precipitation		NOAA Avg Growing Season Precipitation	
Disturbances and Animal Use:	Recent seismic operation		

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:	Runoff from the Caprock is noted, short and stable flow patterns					
S H	Pedestals and/or Terracettes				X	
Comments:	slight					
S H	Bare Ground					X

Comments:	This location is estimated at 15%, ecological site = 30%					
S H	Gullies			X		
Comments:	Runoff from the Caprock, gullies have some headcuts					
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:	Mesquite dunes forming					
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:	Loss of A horizon soils					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups					X
Comments:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	estimation at this location = 50%, ecological site = 25%					
B	Annual Production				X	
Comments:	More mesquite present than desirable, ecological site estimates 2250 lbs/acres, this location is within 60%.					
B	Invasive Plants		X			
Comments:	Mesquite and creosote					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:						
B	Wildlife Habitat					X

Comments:						
B	Wildlife Populations					X
Comments:						
B	Special Status Species Habitat				X	
Comments:	Mesquite encroachment may be influencing the habitat quality					
B	Special Status Species Populations				X	
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	5	4
H	Hydrologic	0	0	1	5	5
B	Biotic	0	1	0	5	7

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9
Hydrologic		0	1	10
Biotic	The level of mesquite and creosote are having a impact on this Biotic Determination. The other factors here all were ranked as "None to Slight" or "Slight to Moderate".	1	0	12

Site Notes: Species noted at this site: bluestems, dropseeds, gramas, three awn, sand sage, yucca and snakeweed. The team would also recommend mapping for a potential mesquite treatment, to bring that level back in line with the ecological site description.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 65185-W PAST 1-D256						
Legal Land Desc	NWNW 3 0150S 0300E Meridian 23		Acreage		876	
Ecosite	070BY061NM SAND HILLS CP-2		Photo Taken		Y	
Watershed	13060007090 SHINNERY SANDS					
Observers	TRAUTNER & ARNOLD		Observation Date		09/29/2010	
County Soil Survey	NM666 CHAVES SOUTH		Soil Var/Taxad			
Soil Map Unit	Rn		Soil Taxon Name		ROSWELL	
Texture Class	NM666 FS		Soil Phase		ROSWELL-JALMAR	
Texture Modifier	NM666 FINE SAND					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation			NOAA Growing Season Precipitation			
NOAA Avg Annual Precipitation			NOAA Avg Growing Season Precipitation			
Disturbances and Animal Use:	Livestock use noted					
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:	Some distinct flow patterns					
S H	Pedestals and/or Terracettes				X	
Comments:	no exposed roots					
S H	Bare Ground					X

Comments:	estimated at this location = 20%, ecological site = 35%					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:	mesquite dunes forming					
H	Litter Movement				X	
Comments:	some along flow patterns					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	areas of good surface crust, but dissolves quickly in H2O					
S H B	Soil Surface Loss or Degradation				X	
Comments:	some depletion of A horizon					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups					X
Comments:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	estimated at this location = 40%, ecological site = 30%					
B	Annual Production					X
Comments:	ecological site = 1800 lbs/acres, this site is within 80% of that					
B	Invasive Plants		X			
Comments:	Mesquite					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts					X
Comments:	good physical and biological crusts					
B	Wildlife Habitat					X

Comments:						
B	Wildlife Populations					X
Comments:						
B	Special Status Species Habitat					X
Comments:						
B	Special Status Species Populations					X
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	5	5
H	Hydrologic	0	0	0	5	6
B	Biotic	0	1	0	2	10

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11
Biotic	While the Invasive Plants indicator was rated as Moderate to Extreme due to the level of mesquite, the remaining factors for the Biotic attributes fall into either "None to Slight" or "Slight to Moderate". The team would recommend a vegetation manipulation be applied to the mesquite.	1	0	12

Site Notes: Species found at this location: bluestems, dropseeds, hairy grama, three awn, sand sagebrush, shinnery oak, annual sunflower, buckwheat and 4 wing saltbush. Definitely would recommend a mesquite treatment.

Determination of Public Land (Rangeland) Health for 65185 CAPROCK WEST - M

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, including native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on these assessments, it is my determination that public land within Caprock West, allotment #65185, meets the (1) Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ J. Howard Parman

Assistant Field Manager

03/11/2011

Date